

Appendix C

Summary of the Differences Between the Current and Proposed Amended Airborne Toxic Control Measure

Appendix C

Summary of the Differences Between the Current and Proposed Amended ATCM

	Current Dry Cleaning ATCM	Proposed Revised ATCM
Applicability	Owner/operator of Perc dry cleaning equipment	Owner/operator, manufacturer, or distributor of dry cleaning equipment that uses any solvent that contains Perc or an identified TAC.
Definitions		<ul style="list-style-type: none"> • 18 new definitions • 6 amended • 7 deleted
Prohibitions	Owner/operator shall not operate a transfer machine, vented machine, or a self-service dry cleaning machine	Expands prohibitions to include primary control machine, converted machine, drying cabinet, conduct dip tank operations, or secondary control system that has not been certified pursuant to subsection (l).
Initial Notification	Provide district in writing with name of owner and operator of facility; name and location of facility; whether facility is co-located with a residence; number, types, and capacities of dry cleaning machines; existing facilities only shall provide the annual gallons of Perc purchased.	No requirements.
Co-residential Facilities	No provisions	<p>No co-residential facility shall install dry cleaning equipment which uses solvents that contain Perc.</p> <p>Existing co-residential facilities shall remove currently installed Perc dry cleaning machines by July 1, 2010.</p>
New Facilities	Shall install, operate, and maintain a closed-loop machine with primary control and secondary control.	<p>(1) No person shall operate a new facility which uses Perc unless the following is met:</p> <ul style="list-style-type: none"> - Facility is located at least 300 ft. from a sensitive receptor; - Facility is located outside of and at least 300 feet from the boundary of an area zoned for residential use; - An enhanced ventilation system has been installed; - Facilities using Perc shall install, operate, and maintain an integral secondary control machine; and <p>(2) No person shall operate a new facility that uses a TAC other than Perc unless the following conditions are met:</p> <ul style="list-style-type: none"> - The facility shall install, operate,

New Facilities (con't)		<p>and maintain best available control technology as required by applicable district rules or regulations; or</p> <ul style="list-style-type: none"> - In the absence of applicable district rules or regulations, the owner or operator of a new facility shall submit to and have approved by the district a control method or methods that achieve reductions in the risk associated with the TAC that equal or exceed the reductions for Perc under this section. <p>(3) A new facility shall be deemed to meet the above siting requirement if one of the following are met:</p> <ul style="list-style-type: none"> - If the facility meets the requirement at the time it is issued an authority to construct by the permitting agency, and substantial use of the authority to construct takes place within one year after it is issued; or - If the facility meets the above requirement at the time it is issued an authority to construct by the permitting agency, and substantial use of the authority to construct takes place before any zoning change occurs that affects the operation's ability to meet the standard at the time of initial startup.
Existing Facilities	<p>Shall install, operate, and maintain either a converted closed-loop machine with primary control; or a closed-loop machine with a primary control system.</p>	<p>All existing facilities that operate Perc dry cleaning equipment shall use an integral secondary control machine. Existing facilities that operated Perc dry cleaning equipment prior to July 1, 2007, and do not have an integral secondary control machine, the compliance schedule is as follows:</p> <ul style="list-style-type: none"> - If the facility is 100 feet or more from a sensitive receptor the facility shall install, operate and maintain an integral secondary control machine by July 1, 2010 or when the primary, converted, or "add-on" secondary control machine is 15 years of age, whichever comes later; or - If a facility is within 100 feet of a sensitive receptor, the facility

Existing Facilities (con't)		<p>shall install, operate and maintain an integral secondary control machine (or non-Perc alternative) by July 1, 2009, or when the primary, converted, "add-on" secondary control machine is 10 years of age, whichever is later.</p> <ul style="list-style-type: none"> - All existing facilities that have not already done so under (A) or (B) above, shall install an integral secondary control machine (or non-Perc alternative) by July 1, 2016. - An existing primary control machine that is designed to accept a secondary control system will qualify as an integral secondary control machine if it meets the requirements in subsection (g)(D) of the proposed Dry Cleaning ATCM. <p>All facilities shall install enhanced ventilation by July 1, 2009, if a sensitive receptor is within 100 ft. of facility as of July 1, 2007; or by July 1, 2010, if a sensitive receptor is 100 ft. or more from the facility, as of July 1, 2007.</p>
Specifications for Required Equipment	<p>Outlined specific requirements for primary control systems, converted machines, add-on secondary control, integral secondary control machines, and drying cabinets.</p>	<p>Deleted specifications for primary control systems, converted machines, add-on secondary control systems, and drying cabinets. Requirements for integral secondary control systems remain the same.</p>
Good Operating Practices	<p><i>Environmental Training Requirements:</i> The facility shall have one or more trained operators. The trained operator shall be a full time employee including the owner, operator, or another employee of the facility, who successfully completed the initial course pursuant to 17 CCR, section 93110. Each trained operator shall successfully complete a refresher course every three years. If the facility has only one trained operator and the trained operator leaves the facility shall notify the district within 30 days of departure; obtain a replacement trained operator within 3 months, except that a trained operator who owns or manages</p>	<p>Same requirement, however, the length of time to notify the district when a trained operator leaves the employ of the facility has been reduced from 30 days to 15 days of the departure. The exception of allowing a trained operator who owns multiple facilities serve as the interim trained operator at two of those facilities has been deleted. The trained operator shall be an owner/employee of the facility and shall be on site while the dry cleaning machine is in operation.</p>

<p>Good Operating Practices (con't)</p>	<p>multiple facilities may serve as the interim trained operator at two of those facilities simultaneously for a max period of 4 months. If an initial course is not reasonable available, the district may extend the certification period for a replacement trained operator until 1 month after the course is reasonably available.</p> <p><i>Operation and Maintenance Requirements:</i> The trained operator shall operate and maintain the dry cleaning system in accordance to this section and conditions on the facility's operating permit. Operations not specifically addressed shall be operated and maintained in accordance with the manufacturer's recommendations. The district shall provide an operation and maintenance checklist. Each operation and maintenance function and the date performed shall be recorded on the checklist. Refrigerated condensers shall be operated to ensure exhaust gases are recirculated until the air-vapor stream temp. on the outlet side of the condenser, downstream of any bypass, is less than or equal to 45°F. Desorption of carbon adsorbers shall be performed at the frequency specified by the district. At a minimum it shall be each time all dry cleaning equipment exhausted to the device has cleaned a total of three pounds of materials for each pound of activated carbon. Desorption shall be performed with the minimum steam pressure and air flow capacity specified by the district. After desorption the carbon bed shall be fully dried according to the manufacturers instructions.</p> <p><i>Leak Check and Repair Requirements:</i> The dry cleaning system shall be inspected weekly for liquid and vapor leaks with either a halogenated-hydrocarbon detector; PID; or an alternative method approved by the district. Any detected leak shall be noted on the checklist provided by the district and repaired within 24 hours. If repair parts are not</p>	<p>Same requirement, however, since transfer and vented machines are no longer permitted, any thing pertaining to these machines has been deleted.</p> <p>In addition to the existing requirements, facility owner/operator shall keep on site a spare set of gaskets for the loading door, still, lint trap, button trap and water separator; and a spare lint filter. Also, carbon adsorbers in integral secondary control systems must be designed for non-contact steam or hot air stripping operation, and must be stripped or desorbed in accordance with manufacturer's instructions or at least weekly, whichever is more frequent.</p> <p>Requirements remain the same however the timeframe to repair a leak has been reduced. Liquid leaks or vapor leaks shall be repaired immediately upon detection. If a facility with a leak does not have parts available, the parts need to be ordered within the next business day of detecting the leak and the part installed within 2</p>
--	---	---

<p>Good Operating Practices (con't)</p>	<p>available, then leaks shall be repaired within 15 working days. If the leak is not repaired at the time of detection, the leaking component shall be clearly marked or tagged. A 30 day extension can be granted by the district.</p> <p><i>Annual Drum Concentration Checks:</i> No requirements</p>	<p>business days after receipt. A facility with a leak that has not been repaired by the end of the 7th business day after detection shall not operate the dry cleaning machine until the leak is repaired. An additional requirement would be that the dry cleaning system shall be inspected at least once a year for liquid and vapor leaks using a PID which gives quantitative results with less than ten percent uncertainty at 50 ppm of Perc.</p> <p>Facilities shall perform annual drum concentration testing by installing a sampling port as specified in section (i)(4)(A)&(B) of the regulation. The sampling shall be done using detector that give quantitative results with less than ten percent uncertainty at 50 ppm of Perc. The concentration of Perc in the drum, as represented by the reading from the sample port upstream of the carbon bed shall be less than 500 ppm at the end of the drying cycle for a new machine during the initial start-up period and less than 1000 ppm at the end of the drying cycle during normal operation after the initial start-up period.</p> <p>The concentration of Perc at the downstream of the carbon bed shall be less than 100 ppm while the secondary control is operating.</p>
<p>Recordkeeping Requirements</p>	<p>Must retain the following records for at least 2 years or until district inspection of facility, whichever period is longer.</p> <ul style="list-style-type: none"> • Log showing date and lbs. of material cleaned/load. • Purchase and delivery receipts for Perc. • For facilities with solvent tanks that are not directly filled by the Perc supplier upon deliver, the date and gallons of Perc added to solvent tank. • Completed leak inspection checklists and the operation and maintenance checklists • For liquid or vapor leaks not repaired at time of detection, a 	<p>All records must be retained for at least 5 years. Requirements are the same with the addition of the following:</p> <ul style="list-style-type: none"> • Wastewater disposal method. If wastewater treatment unit is being used, then make and model of unit. • Purchase and delivery receipts for the dry cleaning solvent; • For add-on or integral secondary control machines: <ul style="list-style-type: none"> - the start and end time of each regeneration, and temperature of chilled air; - Effective July 1, 2008, Perc concentration measured at the

Recordkeeping Requirements (con't)	<p>record of leaking component awaiting repair and action taken to complete repair. Record shall include copies of purchase orders or written records showing repair parts were ordered and/or service requested.</p> <ul style="list-style-type: none"> • Manufacturer's operating manual • Original record of completion for each trained operator. • All records shall be accessible at the facility 	<p>sampling ports located upstream and downstream of the secondary control system at the end of the drying cycle.</p> <ul style="list-style-type: none"> • All records shall be maintained in English and be accessible at the facility.
Reporting Requirements	<p>Maintain annual report which includes:</p> <ul style="list-style-type: none"> • Copy of certificate of completion for trained operator. • Total lbs. of material cleaned/load and gallons of Perc used for all solvent additions. • Average facility mileage. 	<p>Owner or operator shall prepare an annual report which covers the period of January 1st through December 31st of each year. The annual report shall cover the same requirements, however, in addition the facility must include the estimated distance of the facility to the nearest sensitive receptor and nearest business; the make, model, serial number, and age of the dry cleaning machine; the type of ventilation system in the facility; and the method of wastewater disposal. The owner/operator shall furnish this annual report to the district by February 2nd of each year. The districts shall report to ARB the annual Perc purchases of permitted facilities by April 2nd of each year or an alternate date agreed upon by the district and ARB.</p>
Testing & Certification of Secondary Control	<p><i>Test Program and Scope:</i> For a given design a single test program shall be conducted. A test plan that describes, in detail, the dry cleaning machine and control system being tested, the test protocol and test method shall be prepared. A minimum of three tests shall be conducted for each test program on each control system design. All tests for a single test program shall be conducted on a single dry cleaning machine. Test results may not be applied to a different make/model machine.</p> <p><i>Test Conditions:</i> Testing shall be conducted under normal operating conditions.</p>	<p>Same requirements, however the following additional requirements apply:</p> <ul style="list-style-type: none"> • When testing a particular dry cleaning machine model that is available in various capacities and carbon weights, testing shall be conducted on the configuration with the largest ratio of drum capacity to weight of the carbon. The ratio calculation is included in the regulation language. • Test results may not be applied to a replacement dry cleaning machine that has been reconfigured. <p>Test conditions for primary control, add-on secondary control and drying cabinets have been deleted.</p>

<p>Testing & Certification of Secondary Control</p>	<ul style="list-style-type: none"> • Primary and Secondary - shall be filled to no less than 75 percent of its capacity. Weight of materials shall be recorded. • Primary - shall be tested on a closed-loop machine, or a converted machine, without secondary control. • Secondary - shall be tested on a closed-loop machine. • Integral secondary - shall be tested with primary control operating normally. • Add-on secondary - shall be tested independent of primary and initial Perc concentration in drum shall be 8600 ppmv or greater. • Drying Cabinet – Materials shall be transferred to the drying cabinet and testing shall begin no later than 15 minutes after the end of the washing and extraction process. The drying cabinet shall be filled 50 percent of its capacity. The weight of the material shall be recorded. <p><i>Test Method:</i> Primary and secondary control</p> <ul style="list-style-type: none"> • Temperature in the drum shall be measured and recorded continuously during the entire drying cycle. • Sampling: <ul style="list-style-type: none"> - For primary control and integral secondary control shall begin at the end of the drying cycle and completed within five minutes. - For add-on secondary control systems shall be done when the concentration of Perc is 8,600 ppmv or greater and again when the concentration reaches 300 ppmv or less. • Perc concentration in the drum shall be determined by the following methods: <ul style="list-style-type: none"> - A sampling port and valve shall be appropriately placed to draw samples from the interior of the drum or lint filter housing. Sampling port shall be connected to a gas chromatograph by ¼", outside diameter, Teflon tubing. Any 	<p>Test conditions for integral secondary control have been modified as follows:</p> <p>Integral secondary control systems shall be tested on closed-loop machines with the primary control system operating normally. The weight of materials shall be recorded for each test.</p> <ul style="list-style-type: none"> • Each test shall be conducted during the cleaning of one load of materials, after running 80 percent of the manufacturer's recommended number of loads before carbon regeneration. • The machine shall be filled to no less than 85 percent of its capacity for each test. At least 70 percent of the load to be cleaned must consist of woolen or absorbent padded material. <p>Test methods for primary control, add-on secondary and drying cabinets have been deleted.</p> <p>Existing test method requirements for integral secondary control remain the same, however, the following requirement has been modified:</p> <ul style="list-style-type: none"> • An alternative test method deemed acceptable by the EO of the ARB.
--	---	--

Testing & Certification of Secondary Control (con't)	<p>sampling pump shall have Teflon diaphragms. The gas chromatograph shall measure the concentrations of Perc in accordance to Method 422 or NIOSH Method 1003.</p> <ul style="list-style-type: none"> - A sampling port and valve shall be appropriately placed to draw samples from the interior of the drum or lint filter housing. Sampling port shall be connected by ¼" outside diameter Teflon tubing to a Tedlar bag. Any sampling pump shall have Teflon diaphragms. The concentration of Perc in the air samples shall be measured in accordance with ARB Method 422 or NIOSH Method 1003 within 24 hours of sampling. If an independent lab is contracted to perform analysis of the samples, the chain of custody procedures in Method 422 or NIOSH 1003 shall be followed. • An alternative test method deemed acceptable by the APCO or EO of the district and the EO of the ARB. <p><i>Certification Procedures:</i> Detailed description of the dry cleaning system including control device; the test protocol; and the test method.</p>	<p>A detailed description of the dry cleaning system including control devices;</p> <p>A copy of the operations manual, written in plain English;</p> <p>Production photographs of the front and rear of the dry cleaning machine for which certification is being requested; and</p> <p>Any other information deemed necessary by the Air Resources Board to consider the request for certification.</p>
Wastewater Treatment	<p>Wastewater evaporators shall be operated to ensure that no liquid Perc or visible emulsion is allowed to vaporize.</p>	<p>Effective July 1, 2008, wastewater shall be hauled away by a registered hazardous waste transporter or treated in a wastewater treatment unit.</p> <p>The wastewater treatment unit shall meet the following requirements:</p> <ul style="list-style-type: none"> - A self contained unit designed to minimize solvent discharge to

Wastewater Treatment (con't)		<p>the environment, including but not limited to the air, water, and sewer system;</p> <ul style="list-style-type: none"> - The wastewater shall be placed in a wastewater treatment unit that has adequate processing capacity for the facility as determined by the district; and - The wastewater treatment unit shall be equipped with a separator with the following requirements: a solvent/water separation settling chamber; and carbon or another type of adsorbent filtration system that the wastewater cycles through.
Water-repelling Operations	No person shall perform water-repelling or dip tank operations unless all materials to be treated with Perc water-repelling are treated in a closed-loop machine, a converted machine or a dip tank.	All materials to be treated with Perc water-repelling can only be treated in a closed-loop machine only, <u>not</u> a converted machine or a dip tank.
Severability	Not addressed	Each part of this section is deemed severable, and in the event that part of this is held to be invalid, the remainder of this section shall continue in full force and effect.